

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1) (Currently Amended) A ocean-bottom Ocean-bottom station designed to perform in situ measurements, comprising a support structure-(~~2,3~~) with positive buoyancy with which there is associated at least one detachable ballast-(4) to convey said support structure to the bottom of the ocean for the period of a measurement session, the support structure including at least one hydrophone-(6), one data acquisition unit-(7) to record measurement data and one device for the releasing of said detachable ballast,

~~characterized in that~~ the data acquisition unit-(7) is being furthermore capable of controlling the releasing device in response to an acoustic release command received by the hydrophone-(6).

2) (Currently Amended) A station Station according to claim 1, ~~characterized in that~~ the release command ~~is being~~ a low-frequency acoustic signal modulated by a carrier signal having a frequency of 8 to 12 KHz.

3) (Currently Amended) A station Station according to claim 2, ~~characterized in that~~ said low-frequency acoustic signal ~~is proper~~ being individualized to the station.

- 4) (Currently Amended) A station ~~Station~~ according to claim 1~~any of the above claims~~, ~~characterized in that~~ said low-frequency acoustic signal ~~comprises~~ comprising a plurality of consecutive elementary signals of a first type and of a second type representing a sequence of bits ~~proper individual~~ to said seismic station, the elementary signals of the first type and of the second type respectively representing bits with a value 0 and bits with a value 1, or vice versa.
- 5) (Currently Amended) A station ~~Station~~ according to claim 4, ~~characterized in that~~ the elementary signals of the first type ~~are being~~ signals that are linearly modulated in frequency from the frequency f1 to the frequency f2, with f2>f1, and the elementary signals of the second type ~~are being~~ signals linearly modulated in frequency from the frequency f2 to the frequency f1, or vice versa.
- 6) (Currently Amended) A station ~~Station~~ according to claim 1~~one of the above claims~~, ~~characterized in that, to detect a release command in the signal received by the hydrophone (6), wherein~~ the data-acquisition unit (7) ~~comprises~~ comprising means (100) to sample said received signal and detection means (110) to detect the presence of the low-frequency signal in the sampled signal by digital correlation and deliver a release command to the releasing mechanism if said low-frequency signal is detected, whereby said release command is detected by the hydrophone.

- 7) (Currently Amended) A station ~~Station~~ according to claim 1~~one of the above claims~~, characterized in that the support structure of the station is being constituted by a spherical glass enclosure-(2) placed inside a protection shell-(3), said spherical enclosure-(2) being resistant to the hydrostatic pressure present at depths that may go up to several thousands of meters.
- 8) (Currently Amended) A station ~~Station~~ according to claim 7, characterized in that it furthermore comprises a flash further comprising a signal light-(9) placed inside said spherical enclosure-(2) to produce light when the support structure is raised to the surface after the releasing of the ballast, the protection shell-(3) being given apertures to let through the light produced by said flash signal light-(9).
- 9) (Currently Amended) A station ~~Station~~ according to claim 1~~any of the above claims~~, characterized in that the ballast-(4) is being attached to the support structure by elastic cords (5)-that are fixed, by a first end, to said ballast-(4) and, by a second end, to a metal ring-(15) destructible by electrolysis.
- 10) (Currently Amended) A station ~~Station~~ according to claim 9, characterized in that the releasing mechanism comprises comprising a switch controlled by the detection means-(100) of the data acquisition unit-(7), said switch making an electrical current pass into the metal ring to destroy it when it receives a release command.